

Appl. No. 10/824,745
Reply to Office action of 10/05/2005

REMARKS

Reconsideration of the above-referenced application in view of the above amendment, and of the following remarks, is respectfully requested.

Claims 1, 2, 5-7, 9-14, and 17-24 are pending in this case. Claims 1, 5, and 7 are amended herein and claims 3, 4, 8, 15, and 16 are cancelled herein. Claims 17-24 are added herein to more completely cover that which Applicants regard as the invention.

The Examiner rejected claim 8 under 35 U.S.C. 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 8 is cancelled herein.

The Examiner objected to claims 4-6 as being dependent upon a rejected base claim but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Claim 4 is rewritten as amended claim 1 including all the limitations of the base claim (original claim 1) and the intervening claim (original claim 3). Accordingly, Applicants respectfully submits that claim 1 and the claims dependent thereon are now allowable.

The Examiner rejected claims 1, 12, 14, 15 under 35 U.S.C. 102(e) as being anticipated by Joshi et al. (U.S. Patent 6,787,879). Applicants respectfully submit that this rejection is overcome by the amendment to claim 1 described above and the cancellation of claim 15.

The Examiner rejected claims 1-3, 12, 14, and 15 under 35 U.S.C. 102(e) as being anticipated by Karneyama et al. (U.S. Patent 5,296,388). Applicants respectfully submit that this rejection is overcome by the amendment to claim 1 described above and the cancellation of claim 15.

Appl. No. 10/824,745
Reply to Office action of 10/05/2005

The Examiner rejected claims 1, 11, 15 and 16 under 35 U.S.C. 102(e) as being anticipated by Schuegraf (U.S. Patent 6,459,104). Applicants respectfully submit that this rejection is overcome by the amendment to claim 1 described above and the cancellation of claims 15 and 16.

The Examiner rejected claims 7, 9, 10, and 13 under 35 U.S.C. § 103(a) as being unpatentable over Kameyama et al. (U.S. Patent 5,296,388) in view of Joshi et al. (U.S. Patent 6,787,879). Applicants respectfully submit that this rejection is overcome by the amendment to claim 1 described above from which these claims depend.

Applicants respectfully submit that newly added claim 17 is patentable. Claim 17 requires heating the silicon-germanium base layer using a sequence of temperature steps in an RTO chamber and forming a silicon dioxide layer over the silicon-germanium base layer in this RTO chamber. Neither Joshi nor Schuegraf teach heating the silicon-germanium base layer using a sequence of temperature steps. Only one RTA temperature is taught in each reference. Kameyama teaches heating a polysilicon thin film 114C in a furnace and in a RTA heat treatment to form a doped semiconductor region 120. Two heating steps are taught but both are not accomplished in a RTO chamber. Furthermore, a silicon-germanium base layer is not heated in this step. Kameyama does not disclose or suggest heating a silicon-germanium base layer using a sequence of temperature steps in an RTO chamber as required by the claim. Accordingly, Applicants respectfully submit that claim 17 and the claims dependent thereon are patentable.

The additional features of newly added dependent claims 18-24 are likewise not taught or suggested by the references.

The other references cited by the Examiner have been reviewed, but are not felt to come within the scope of the claims as amended.

Appl. No. 10/824,745
Reply to Office action of 10/05/2005

In light of the above, Applicant respectfully requests withdrawal of the Examiner's rejections and allowance of claims 1, 2, 5-7, 9-14, and 17-24. If the Examiner has any questions or other correspondence regarding this application, Applicant requests that the Examiner contact Applicant's attorney at the below listed telephone number and address.

Respectfully submitted,



Jacqueline J. Garner
Reg. No. 36,144

Texas Instruments Incorporated
P. O. Box 655474, M.S. 3999
Dallas, Texas 75265
Phone: (214) 532-9348
Fax: (972) 917-4418

TI-34858

-7-